



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: John M. Caywood

SERIAL NO.: 09/942,338

FILING DATE: August 28, 2001

TITLE: METHOD AND APPARATUS FOR INJECTING CHARGE ONTO  
THE FLOATING GATE OF A NONVOLATILE MEMORY CELL

EXAMINER: Not yet assigned

ART UNIT: Not yet assigned

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**CERTIFICATE OF MAILING**

I hereby certify that this paper is being deposited with the United States Postal Service as First Class  
Mail in an envelope addressed to: Commissioner for Patents, Washington, DC 20231, on the date  
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Name:

Gloria R. Chavarria

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COMMISSIONER FOR PATENTS  
WASHINGTON, D.C. 20231

**INFORMATION DISCLOSURE STATEMENT**

Each item of information listed in the attached FORM PTO-1449, for which a copy of each is attached, may be material to the examination of the above-identified application and is, therefore, submitted in compliance with the duty of disclosure defined in 37 CFR §§ 1.56, 1.97 and 1.98. The Examiner is requested to make these items of official record in this application.

This Information Disclosure Statement under 37 CFR §§ 1.56, 1.97 and 1.98 is not to be construed as a representation that a search has been made, that additional information material to the examination of this application does not exist, or that any one or more of these items constitutes prior art.

Please note that the parent case, CAY-003 (09/275,168 filed March 24, 1999) was withdrawn from issue and expressly abandoned by applicant because the Morie reference (USP 5,111,430 and JP 2964412) was believed to anticipate or render obvious at least allowed claim 1 of 09/275,168.

# I

This statement is filed pursuant to:

☒ 37 C.F.R. § 1.97(b).

This information disclosure statement is filed either (1) within three months of the filing date of a national application other than a continued prosecution application under § 1.53(d); (2) within three months of the date of entry of the national stage as set forth in 37 C.F.R. § 1.491 in an international application; or (3) before the mailing date of a first office action on the merits, whichever event occurs last.

Accordingly, this information disclosure statement requires no fee and no certification.

☐ 37 C.F.R. § 1.97(c).

This information disclosure statement is filed after the period specified in 37 C.F.R. § 1.97 (b), but before the mailing date of either (1) a final action under 37 C.F.R. § 1.113; (2) a notice of allowance under 37 C.F.R. § 1.311; or (3) an action that otherwise closes prosecution in the application.

Accordingly, this information disclosure statement requires either the fee specified in 37 C.F.R. § 1.17 (p) for submission of an information disclosure statement under 37 C.F.R. § 1.97 (c) (\$180); or a certification according to 37 C.F.R. § 1.97 (e).

☐ 37 C.F.R. § 1.97(d).

This information disclosure statement is filed after the period specified in 37 C.F.R. § 1.97 (c).

Accordingly, this information disclosure statement requires the fee specified in 37 C.F.R. § 1.17 (p) to consider an information disclosure statement under 37 C.F.R. § 1.97(d) (\$180), and a certification according to 37 C.F.R. § 1.97(e).

If this statement crosses in the mail with an office action, or is otherwise not in the indicated category of 37 C.F.R. § 1.97, it is respectfully requested that this statement be

treated in the next appropriate category and made of record. To the extent required, please treat this paper as a conditional petition for acceptance of the information disclosure statement.

## II

- ( X ) No fee is due.
- ( ) The fee specified in 37 C.F.R. § 1.17(p) for submission of an information disclosure statement under 37 C.F.R. § 1.97(c) is enclosed (\$180).

Please charge any additional required fee or credit any overpayment to our deposit account number 50-1698. An additional copy of this page is enclosed.

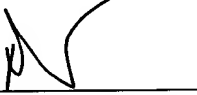
## III

Pursuant to 37 C.F.R. § 1.97(e) , I certify:

- ( X ) No certification is necessary.
- ( ) (1) Each item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the statement.
- ( ) (2) No item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, or, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c), more than three months prior to the filing of the statement.

Respectfully submitted,  
THELEN REID & PRIEST LLP

Dated: 9/18, 2001

  
\_\_\_\_\_  
David B. Ritchie  
Reg. No. 31,562

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treated in the next appropriate category and made of record. To the extent required, please treat this paper as a conditional petition for acceptance of the information disclosure statement.

## II

- ( X ) No fee is due.
- ( ) The fee specified in 37 C.F.R. § 1.17(p) for submission of an information disclosure statement under 37 C.F.R. § 1.97(c) is enclosed (\$180).

Please charge any additional required fee or credit any overpayment to our deposit account number 50-1698. An additional copy of this page is enclosed.

## III

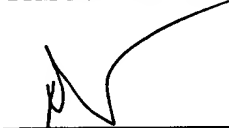
Pursuant to 37 C.F.R. § 1.97(e) , I certify:

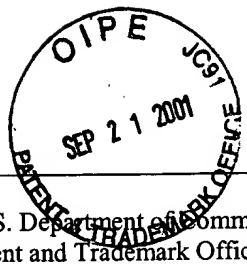
- ( X ) No certification is necessary.
- ( ) (1) Each item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the statement.
- ( ) (2) No item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, or, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c), more than three months prior to the filing of the statement.

Dated: 9/18, 2001

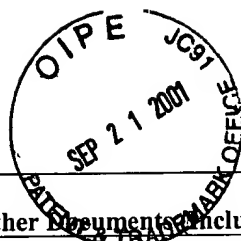
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Respectfully submitted,  
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Reg. No. 31,562



Form PTO 1449 (Rev. 2-32) U.S. Department of Commerce Patent and Trademark Office					Atty. Docket No. CAY-006		Serial No. 09/943,338	
<b>Information Disclosure Statement by Applicant</b>					Applicant: John M. Caywood			
(Use several sheets if necessary)					Filed: 8/28/2001 Group: (to be assigned)			
<b>U.S. Patent Documents</b>								
Init.		Document No.	Date	Name	Class	Subclass	Filing Date	
	A	3,778,645	12/11/73	Mattauch et al.	307	318	1/31/72	
	B	4,035,820	7/12/77	Matzen	357	23	12/29/75	
	C	4,037,242	7/19/77	Gosney	357	23	12/29/75	
	D	4,513,397	4/23/85	Ipri et al.	365	185	12/10/82	
	E	4,626,887	12/2/86	Schmitt-Landsiedel et al.	357	43	8/2/84	
	F	4,630,081	12/16/86	Calviello	357	6	12/19/84	
	G	4,686,558	8/11/87	Adam	357	42	9/1/83	
	H	4,752,912	6/21/88	Guterman	365	185	7/22/85	
	I	4,907,197	3/6/90	Uchida	365	185	7/12/88	
	J	4,907,198	3/6/90	Arima	365	185	11/2/88	
	K	4,910,565	3/20/90	Masuoka	357	23.5	5/12/88	
	L	4,924,437	5/8/90	Paterson et al.	365	185	12/9/87	
	M	4,967,393	10/30/90	Yokoyama et al.	365	185	1/3/90	
	N	5,101,249	3/31/92	Hijiya et al.	357	23.5	5/6/86	
	O	5,111,430	5/5/92	Morie	365	185	6/21/90	
	P	5,235,544	8/10/93	Caywood	365	185	11/9/90	
	Q	5,338,952	8/16/94	Yamauchi	257	315	9/13/93	
	R	5,359,571	10/25/94	Yu	365	230.03	1/25/94	
	S	5,838,039	11/17/98	Sato et al.	257	321	7/8/96	
	T	5,841,161	11/24/98	Lim et al.	257	315	3/3/97	
	U	5,946,240	8/31/99	Hisamune	365	185.28	12/23/97	
	V	5,977,586	11/2/99	Crisenza et al.	257	326	5/31/95	
	W	6,002,152	12/14/99	Guterman et al.	257	316	12/9/98	
<b>Foreign Documents</b>								
								Translation
Init.		Document No.	Date	Country	Class	Subclass	Yes	No
	X	2964412	10/18/99	Japan			X	



## Other Documents (Including Author, Title, Date, Pertinent Pages, etc.)

	Y	Dons, et al., "Direct Tunneling Diode Structure with a Multi-Layer Charge Injection Barrier", <i>29th IEEE Semiconductor Interface Specialists Conference</i> (1998)
	Z	Guo, Xin, "Tunneling Leakage Current in Oxynitride: Depedence on Oxygen/Nitrogen Content", <i>IEEE, Electron Device Letters</i> , Vol. 19, No. 6, pp. 207-209 (1998)
	AA	Huber et al, "Hot-Electron Transport in Al-Al <sub>2</sub> O <sub>3</sub> Triodes Produced by Plasma Oxidation", <i>Journal of Applied Physics</i> , Vol. 39, No. 11, pp. 5104-5116 (1968)
	BB	Krolikowski, "Photoemission Studies of the Noble Metals. I. Copper", <i>Physical Review</i> , Vol. 185, No. 3, pp. 882-900 (1969)
	CC	Krolikowski, "Photoemission Studies of the Noble Metals II. Gold", <i>Physical Review B</i> , Vol. 1, No. 2, pp. 478-487 (1970)
	DD	Mead, "Operation of Tunnel-Emission Devices", <i>J. Appl. Phys.</i> , Vol. 32, No. 4 (1961)
	EE	Mead, "The Tunnel-Emission Amplifier", <i>Proceedings of IRE</i> , pp. 359-361 (1960)
Examiner		Date Considered
Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include a copy of this form with the next communication to applicant.		